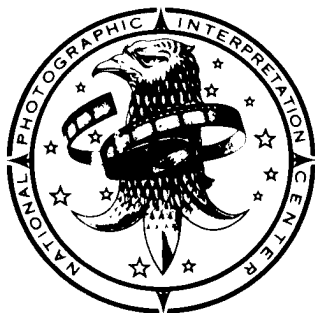


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**P**HOOTOGRAPHIC  
**I**NTERPRETATION  
**R**EPORT

NATIONAL PHOTOGRAPHIC  
INTERPRETATION CENTER

**NEWLY IDENTIFIED SSM  
DEPLOYMENT AREA UNDER  
CONSTRUCTION, TE-LING-HA, CHINA**

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MAY 1977

Copy 141

PIR-011/77

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**Unauthorized Disclosure Subject to Criminal Sanctions**



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**DISSEMINATION CONTROL ABBREVIATIONS**

NOFORN-	Not Releasable to Foreign Nationals
NOCONTRACT-	Not Releasable to Contractors or Contractor/Consultants
PROPIN-	Caution-Proprietary Information Involved
USIBONLY-	USIB Departments Only
ORCON-	Dissemination and Extraction of Information Controlled by Originator
REL ...-	This Information has been Authorized for Release to ...

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## NEWLY IDENTIFIED SSM DEPLOYMENT AREA UNDER CONSTRUCTION, TE-LING-HA, CHINA

1. Two SSM launch sites are under construction in west China, 15 nautical miles (nm) north of Te-ling-ha and 145 nm west-southwest of Liu-ching-kou SSM Launch Complex. The two launch sites are part of a widely separated series of construction sites in the Te-ling-ha area (Figure 1) with caves and tunnels. Together, the areas where construction is underway appear to make up a launch site group which will eventually have four soft launch pads. The probable propellant storage area, underground command post, and hardened communications facility—common features of launch site groups in China—can already be identified at Te-ling-ha.

2. Each launch site at Te-ling-ha contains a large, drive-through tunnel with rail guides extending from the entrances (Figure 2). The rail guides, 23 to 36 meters long and slightly less than a meter wide, are set on a concrete apron. A probable launch pad apron of packed earth has been identified at each site. Each launch site has two or three large, drive-in caves in addition to the tunnel.

3. Rail guides as long as those at Te-ling-ha have only been found at SSM launch complexes (Figure 3, A and B) and are believed to be a signature of SSM activity. The purpose of the rail guides appears to be to ease the movement of the missile airframes through the narrow cave entrances. It is not known if the rail guides extend farther into the underground storage spaces.

4. The latest photography of the Te-ling-ha launch sites in March 1977 provided a high-resolution view of some of the adit facings. In size and configuration, the adits match those at known SSM launch sites (Figure 4, A and B). This particular cave headworks with the double-arch configuration of the entrances (one drive-in arch and one walk-in) is believed to be unique to SSM sites.

5. The two probable launch pad aprons at Te-ling-ha are large and rectangular, similar to the one at Liu-ching-kou SSM Launch Site 3 [REDACTED]. A concrete launch pad has not been constructed, but the entrance roads or ramps leading to the leveled aprons are present. Usually, the concrete launch pad is not built until the late stage of site construction.

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6. The construction chronology of Te-ling-ha is similar to that of the other SSM launch complexes in China; however, the pace of construction has been slower. No evidence of construction activity was observed in November 1967, and when the area was next photographed in November 1970, construction was already underway. Most caves are completely excavated and concrete headworks are being finished. Over half of the construction workers' housing buildings have been removed. Construction of launch pads and permanent housing buildings has not started.

7. A short description of each facility at Te-ling-ha as of March 1977 follows.

- a. Te-ling-ha SSM Launch Site 1 consists of a drive-through tunnel with rail guides extending 30 to 36 meters from both adits, four other adits in a separate valley, a probable launch pad apron, and 44 construction support buildings.

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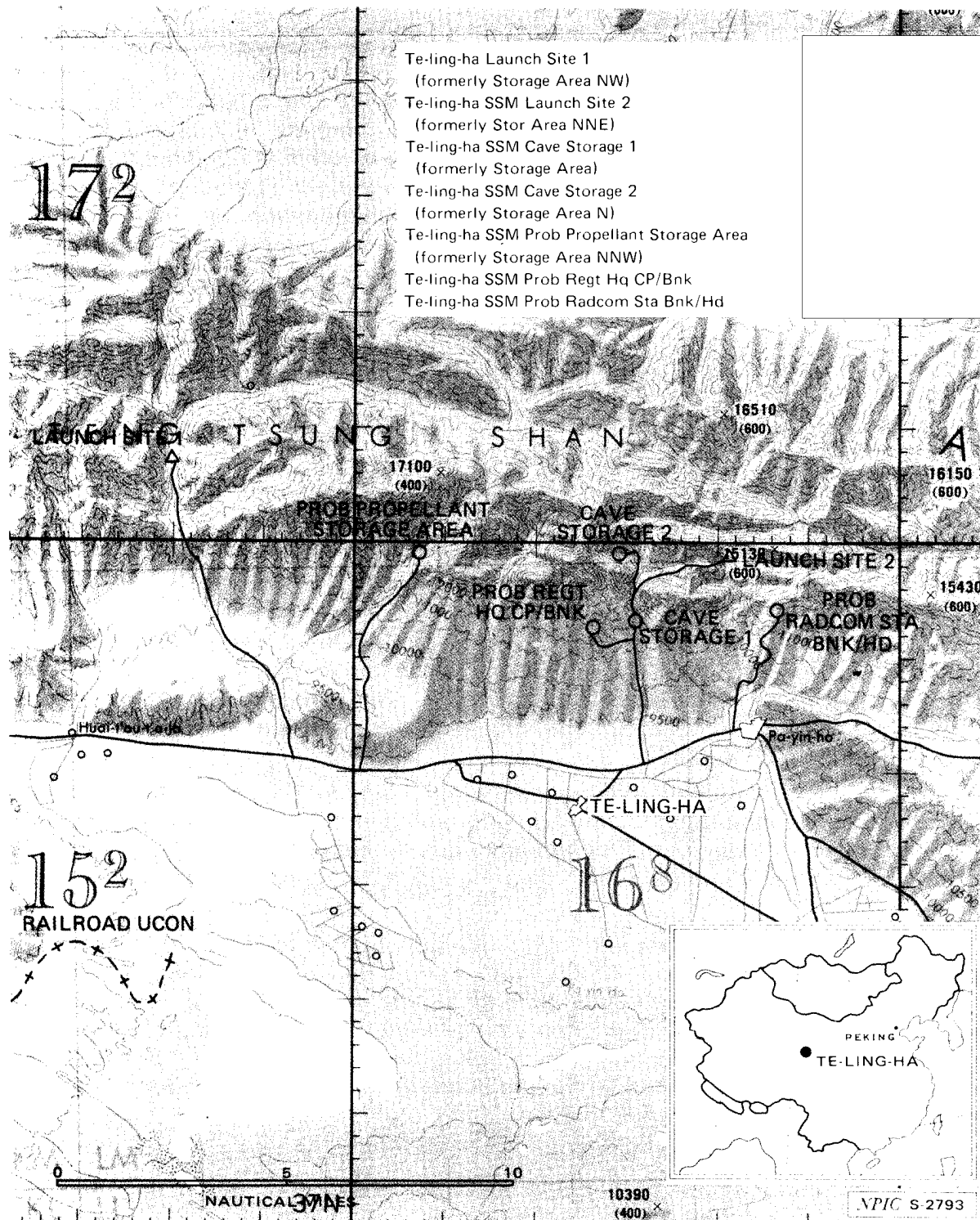


FIGURE 1. LOCATIONS OF SSM FACILITIES, TE-LING-HA, CHINA

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- b. Te-ling-ha SSM Launch Site 2 consists of a drive-through tunnel with rail guides extending 23 to 25 meters from both adits, four other adits in a separate valley, a probable launch pad apron between the two sets of adits, and 25 construction support buildings. Camouflage netting covers all adit faces, and a series of slogan banners was observed near the probable launch pad apron.
- c. Te-ling-ha SSM Cave Storage 1 consists of one large adit and two small adits. Seven construction support buildings are still in the area.
- d. Te-ling-ha SSM Cave Storage 2 consists of three adits facing a central leveled area served by an improved road. Camouflage netting covers all three adit openings, and 11 construction support buildings are present.
- e. Te-ling-ha SSM Probable Propellant Storage Area consists of three adits facing a central leveled area, a single adit approximately 200 meters west of the other adits, and nine construction support buildings.
- f. Te-ling-ha SSM Probable Regiment Headquarters, Command Post/Bunker consists of two small walk-in adits. One construction support building is in the area.
- g. Te-ling-ha SSM Probable Radio Communications Station Bunker/Hard (Figure 5) consists of two probable hardened antenna housings on a ridge with two adits constructed in the hillside below them. A probable antenna feedline scar connects one of the antenna housings with one of the adits. Construction has not progressed in the area during the past 2 years, and several open-pit mines are in the vicinity.

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**REFERENCES**

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**MAPS OR CHARTS**

DMAAC. TPC, Sheet G-8B, scale 1:500,000

**REQUIREMENT**

Project 143480NA

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## List of Conversion Factors by Classification

### UNITS OF LENGTH

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
MILLIMETERS	0.0394	INCHES
CENTIMETERS	0.3937	INCHES
INCHES	25.4000	MILLIMETERS
INCHES	2.5400	CENTIMETERS
FEET	0.3048	METERS
FEET	0.0003	KILOMETERS
YARDS	0.9144	METERS
METERS	3.2808	FEET
METERS	0.0005	MILES(NAUTICAL)
METERS	1.0936	YARDS
KILOMETERS	3280.8400	FEET
KILOMETERS	0.6214	MILES(STATUTE)
KILOMETERS	0.5400	MILES(NAUTICAL)
MILES(STATUTE)	1.6093	KILOMETERS
MILES(NAUTICAL)	6076.1154	FEET
MILES(NAUTICAL)	1.8520	KILOMETERS
MILES(NAUTICAL)	1852.0000	METERS

### UNITS OF MASS

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
KILOGRAMS	2.2046	POUNDS(AVOIR.)
POUNDS(AVOIR.)	0.4536	KILOGRAMS
SHORT TONS	0.9072	METRIC TONS
METRIC TONS	1.1023	SHORT TONS
METRIC TONS	0.9842	LONG TONS
LONG TONS	1.0160	METRIC TONS

### UNITS OF VOLUME

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
LITERS	0.2642	GALLONS
LITERS	0.0063	BARRELS(POL)
LITERS	0.0010	CUBIC METERS
GALLONS	3.7854	LITERS
GALLONS	0.1337	CUBIC FEET
GALLONS	0.0238	BARRELS(POL)
GALLONS	0.0038	CUBIC METERS
BUSHELS	0.0352	CUBIC METERS
CUBIC FEET	7.4805	GALLONS
CUBIC FEET	0.1781	BARRELS(POL)
CUBIC FEET	0.0283	CUBIC METERS
CUBIC YARDS	0.7646	CUBIC METERS
BARRELS(POL)	158.9873	LITERS
BARRELS(POL)	42.0000	GALLONS
BARRELS(POL)	5.6146	CUBIC FEET
BARRELS(POL)	0.1590	CUBIC METERS
CUBIC METERS	1000.0000	LITERS
CUBIC METERS	264.1721	GALLONS
CUBIC METERS	35.3147	CUBIC FEET
CUBIC METERS	28.3776	BUSHELS
CUBIC METERS	6.2898	BARRELS(POL)
CUBIC METERS	1.3080	CUBIC YARDS

### UNITS OF AREA

<i>IF YOU HAVE</i>	<i>MULTIPLY BY</i>	<i>TO OBTAIN</i>
SQUARE CENTIMETERS	0.1550	SQUARE INCHES
SQUARE INCHES	6.4516	SQUARE CENTIMETERS
SQUARE FEET	0.0929	SQUARE METERS
SQUARE YARDS	0.8361	SQUARE METERS
SQUARE METERS	10.7639	SQUARE FEET
SQUARE METERS	1.1960	SQUARE YARDS
SQUARE METERS	1.0000	CENTARES
SQUARE METERS	0.0002	ACRES
SQUARE METERS	0.0001	HECTARES
ACRES	4046.8564	SQUARE METERS
ACRES	0.4047	HECTARES
HECTARES	10000.0000	SQUARE METERS
HECTARES	2.4711	ACRES

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